

# MNWR

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## MORBIDITY AND MORTALITY WEEKLY REPORT

### Epidemiologic Notes and Reports

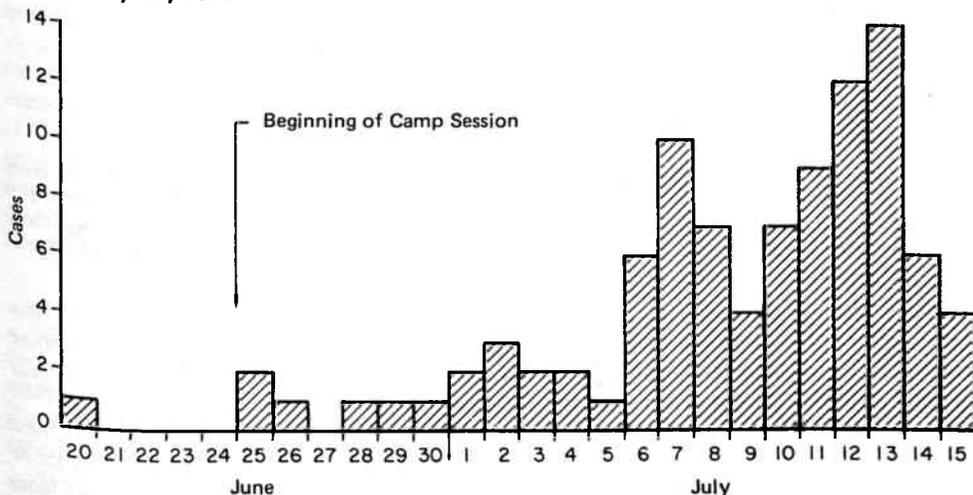
#### Acute Respiratory Illness — Wisconsin

Two outbreaks of respiratory disease occurred in Wisconsin in June and July—one in campers and staff members of a boys' camp in the northern part of the state, the other in members of a national singing group that was touring the Midwest. Details of the investigations follow.

**Oneida County:** Ninety-two of 155 campers (59%) and 15 of 49 older staff (31%) at a boy's camp in Oneida County experienced an illness characterized by non-productive cough (100%), sore throat (35%), headache (32%), and temperature of  $\geq 37.7$  C (28%). No myalgia or pleuritis was noted. Rash, conjunctivitis, and bullous myringitis were not seen on physical examination. Chest radiographs were taken on 75 of the cases; 38 were positive (25 with unilateral discrete infiltrates, 9 with bilateral discrete infiltrates, and 4 with bilateral diffuse infiltrates). No pleural effusions were seen. Some of the campers had been ill 8 days at the time of investigation. None of the children required hospitalization, but all ill children were sent home.

Small numbers of cases occurred throughout the 2 weeks after the camp session began on June 25, but new cases increased markedly by July 6 (Figure 1). In the last 2 weeks new cases have continued to occur; documentation of these cases is in progress. Disease

**FIGURE 1.** Cases of respiratory illness in a boys' camp, by date of onset, Wisconsin, June 20-July 15, 1978\*



\*In 6 cases the date of onset is unknown.

### Acute Respiratory Illness — Continued

was limited to the camp under investigation; no other camps in the area, including a girls' camp which had participated on July 4 in a picnic with the involved camp, had any cases. Attack rates of illness, which decreased with increasing age, ranged from 88% in the 8-year-old campers to 38% in the 15-year-old campers to 32% in the 17- to 22-year-old counselors.

Campers slept in cabins with 9-11 other boys of the same age. Attack rates of illness, by cabin, ranged from 20% to 100%. Campers were confined to their cabins July 1 and 2 because of rain. The boys all ate together in a large mess hall, although residents of each cabin sat together at separate tables.

Laboratory studies to determine an etiologic agent are inconclusive, to date.

**Two Rivers:** On July 15 the Wisconsin State Department of Health and Social Services was notified of 9 cases of acute respiratory disease occurring in members of a singing group scheduled to perform in Two Rivers. Retrospectively, it was determined that cases had been occurring in the group, composed of 80 men and women 17-24 years of age, since June 26. A total of 29 persons were subsequently identified as having had a respiratory disease (attack rate: 36%) characterized by cough (100%), headache (83%), fatigue (83%), pharyngitis (69%), and fever (62%). Four persons had been hospitalized overnight. Attack rates were approximately the same for both sexes. Chest radiographs on 7 of the patients demonstrated bilateral infiltrates (in 1 patient), unilateral infiltrates (3), and an interstitial pattern (7); 2 were normal. Of 9 patients seen by a physician, 1 had bullous myringitis, and 3 had rales on chest examination.

Initial laboratory studies on 9 patients who had blood specimens drawn showed abnormal cold agglutinin titers on 5 patients: 1:64 in 1 patient (the patient with bilateral pneumonia) and 1:32 in 4 patients with pneumonia on X ray. The white blood cell count was normal in all 9 patients tested. Diagnosis was not confirmed; however, *Mycoplasma pneumoniae* was suspected as the cause of the outbreak.

Neither the source of the outbreak nor the method of transmission is yet known. The group has a very active performance schedule; it has toured 2-3 cities per week since January. The members share most meals and social activities and sleep in homes of persons in the community where they are touring. Roommates are randomly assigned, 1-3 persons per home, and change from city to city.

The group's final 2 shows on the tour were canceled, and members returned to their homes. Studies are now in progress to determine the secondary attack rate in the community contacts of the group.

*Reported by AT Davis, MD, Children's Memorial Hospital, Chicago; R Golubjatnikov, PhD, IE Imm, MA, State Epidemiologist, S Inhorn, MD, M LaVenture, MPH, L Montie, Wisconsin State Dept of Health & Social Services; Respiratory Virology Br, Virology Div, Virology Training Br, Laboratory Training and Consultation Div, Bur of Laboratories, Bacterial Diseases Div, Viral Diseases Div, Bur of Epidemiology, CDC.*

**Editorial Note:** These 2 outbreaks are similar in the season of occurrence, attack rates, and the high proportion of pneumonia. Possible etiologic agents include *M. pneumoniae*, adenovirus, parainfluenza virus, respiratory syncytial virus (more common in a  $\leq 2$ -year age group), influenza virus, or *Coxiella burnetii*.

The most likely cause of epidemic pneumonia in the age groups described in these 2 outbreaks would be *M. pneumoniae*, an endemic respiratory pathogen that may be responsible for up to 20% of pneumonic illness in urban populations (7). The incidence of mycoplasmal pneumonia usually peaks every third year, and 1978 appears to be a peak year. In contrast to lobar pneumonia, the lowest attack rates of mycoplasmal pneumonia are in children under 5 and in older persons. Also, although it occurs all year, it accounts for

*Acute Respiratory Illness — Continued*

a larger proportion of summer pneumonia cases. When localized outbreaks of *M. pneumoniae* pneumonia occur, they are most often associated with groups that have close contact, such as military or institutionalized persons (2).

Although cold agglutinins may be used to make a presumptive diagnosis, complement fixation (CF) titers are necessary to make a definitive diagnosis. Elevation of the CF titers, however, may take 2-3 weeks. Early treatment with erythromycin shortens the course of the illness but will not affect the antibody response (3).

*References*

1. Joy HM, Kenny GE, McMahan R, Mansy AM, Grayston JT: *Mycoplasma pneumoniae* pneumonia in an urban area. JAMA 214:1666-1672, 1970
2. Van der Veen J, Van Nunan MCJ: Role of mycoplasma pneumonia in acute respiratory disease in a military population. Am J Hyg 78:293-301, 1963
3. Denny FW, Clyde WA, Glazen WP: Mycoplasmal pneumonia disease: Clinical spectrum, pathophysiology, epidemiology, and control. J Infect Dis 123:74-92, 1971

*International Notes***Follow-up on Poliomyelitis — Netherlands, Canada**

**Netherlands:** As of August 2, 1978, 95 cases of poliomyelitis have been reported to the Ministry of Health, Netherlands. Eighty-six of these cases have been confirmed virologically. The 95 cases include 71 with paralysis and 24 with aseptic meningitis. All of the cases continue to be among members of selected religious groups previously mentioned as having refused vaccination (1). There has been 1 death—in a 3-month-old infant.

The age distribution of patients ranged from 3 weeks to 41 years; all but 6 cases were under 27 years old. The most recent activity has been noted primarily in the province of South Holland. The cases that occurred in July (12) represent a decrease from June, when 58 cases were reported.

**Canada:** There have been 3 cases of suspected poliomyelitis reported to the Laboratory Centre for Disease Control in Canada. Of these, 2 have paralysis, and one has aseptic meningitis. All 3 patients were known to have had recent contact in Canada with members of the previously discussed religious sect from the Netherlands.

*Reported by the Office of the Chief Medical Officer, Netherlands; Laboratory Centre for Disease Control, Canada; Viral Diseases Div, Bur of Epidemiology, CDC.*

**Editorial Note:** Though there appears to be a decrease in activity, recommendations that U.S. travelers who are inadequately protected against poliomyelitis be vaccinated before going to Holland (1) continue to be in effect.

*Reference*

1. MMWR 27:222, 1978

**Quartan Malaria — Grenada**

Grenada was declared free of malaria in 1962 following an eradication campaign, but because isolated cases of malaria have been reported over the last 16 years, a mass blood survey at Westerhall, 7 miles from the capital city of St. George's, was instituted by the Ministry of Health and the Caribbean Epidemiology Centre/Pan American Health Organization (CAREC/PAHO) in February 1978.

Two hundred twenty-five smears were obtained; 47 of these were found to be positive for *Plasmodium malariae*. Forty-five of the infected individuals were from Westerhall and the remaining two from adjacent villages. None of these people was clinically ill. No *P. vivax* or *P. falciparum* cases were detected.

### Malaria — Continued

At the time of the 1962 eradication effort, *Anopheles aquasalis* was presumed to be the primary vector. This is also presumed to be true for the current cases. Control measures, consisting of radical therapy of all persons who had positive smears with chloroquine and primaquine, presumptive treatment of all residents of the infective area, and residual treatment of houses with insecticides, have been instituted. A follow-up blood survey is in progress.

Reported by Dr. L. Comissiong, Ministry of Health and Housing, St. George's; CAREC/PAHO in the CAREC Surveillance Report 4(5):3, May 1978; and the Parasitic Diseases Div, Bur of Epidemiology, CDC.

**Editorial Note:** This cluster of cases emphasizes the need to continue malaria surveillance following eradication programs. Introduced cases, relapses, or recrudescing cases may serve as reservoirs for transmission. The risk of malaria for travelers appears to be negligible, however.

Although many feel that radical cure with primaquine is not indicated in *P. malariae* infections because the long latent periods may be due to persisting, low-density parasitemia rather than secondary exoerythrocytic stages (1), others still consider *P. malariae* to be a relapsing malaria requiring primaquine therapy.

### Reference

1. MMWR 27(10 Suppl):82, 1978

**TABLE I. Summary — cases of specified notifiable diseases, United States**  
[Cumulative totals include revised and delayed reports through previous weeks.]

DISEASE	30th WEEK ENDING		MEDIAN 1973-1977**	CUMULATIVE, FIRST 30 WEEKS		
	July 29, 1978	July 30, 1977*		July 29, 1978	July 30, 1977*	MEDIAN 1973-1977**
Aseptic meningitis	169	174	97	1,690	1,716	1,407
Brucellosis	3	8	8	87	121	121
Chickentpox	768	798	619	120,192	158,513	143,127
Diphtheria	1	—	1	49	54	120
Encephalitis: Primary (arthropod borne & unsp.)	20	26	26	367	404	490
Post-infectious	3	10	7	116	126	173
Hepatitis, Viral: Type B	319	309	291	8,473	9,480	6,512
Type A	535	552	664	16,352	17,889	20,164
Type unspecified	209	160		5,066	5,114	
Malaria	21	22	9	377	289	218
Measles (rubella)	213	531	268	21,744	51,690	23,429
Meningococcal infections: Total	49	22	22	1,559	1,144	956
Civilian	48	22	22	1,539	1,137	931
Military	1	—	—	20	7	21
Mumps	147	157	368	12,507	15,249	42,613
Pertussis	38	57	—	1,045	590	—
Rubella (German measles)	143	155	108	14,416	18,147	14,380
Tetanus	4	1	2	45	36	44
Tuberculosis	741	550	612	17,351	17,322	18,294
Tularemia	2	7	4	59	83	83
Typhoid fever	9	10	9	247	198	216
Typhus fever, tick-borne (Rky. Mt. spotted)	55	48	48	554	657	461
Venereal diseases:						
Gonorrhoea: Civilian	22,609	21,669	21,669	549,977	551,768	551,768
Military	540	494	680	14,418	15,629	16,444
Syphilis, primary & secondary: Civilian	496	359	486	11,886	11,777	14,017
Military	7	9	9	169	176	198
Rabies in animals	70	64	78	1,727	1,737	1,692

**TABLE II. Notifiable diseases of low frequency, United States**

	CLIM. 1978		CUM. 1978
	Anthrax		4
Botulism	51	Paralytic	—
Congenital rubella syndrome (Tex. 1)	21	Psittacosis? (Ore. 2, Calif. 1)	61
Leprosy (La. 2, Calif. 1, Hawaii 6)	88	Rabies in man	—
Leptospirosis (Ohio 1, Calif. 1, Hawaii 1)	36	Trichinosis	37
Plague (Ariz. 1)	3	Typhus fever, flea-borne (endemic, murine) (Ore. 1)	25

\*Delayed reports received for calendar year 1977 are used to update last year's weekly and cumulative totals.

\*\*Medians for gonorrhoea and syphilis are based on data for 1975-1977.

†The following delayed report will be reflected in next week's cumulative totals: Psittacosis: Colo. 5.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending July 29, 1978, and July 30, 1977 (30th week)

REPORTING AREA	ASEPTIC MENIN- GITIS	BRU- CEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-in- fectious	B	A	Unspecified		
						1978	1977*	1978	1978	1978	1978		
UNITED STATES	169	3	768	1	49	20	26	3	319	535	209	21	377
NEW ENGLAND	7	--	34	--	--	--	2	--	6	10	9	--	14
Maine	--	--	7	--	--	--	--	--	1	1	--	--	1
N.H.†	3	--	--	--	--	--	--	--	--	1	--	--	2
Vt.	--	--	--	--	--	--	--	--	--	--	--	--	--
Mass.	2	--	9	--	--	--	2	--	1	3	9	--	3
R.I.	--	--	13	--	--	--	--	--	2	2	--	--	1
Conn.	2	--	5	--	--	--	--	--	2	3	--	--	7
MID. ATLANTIC	16	--	134	--	1	4	2	--	54	69	26	8	77
Upstate N.Y.	2	--	84	--	--	--	--	--	6	9	7	--	10
N.Y. City	5	--	50	--	1	1	--	--	8	5	3	5	34
N.J.†	8	--	NN	--	--	--	2	--	16	25	7	2	17
Pa.†	1	--	--	--	--	3	--	--	24	30	9	1	16
E.N. CENTRAL	22	--	369	--	--	3	11	--	36	79	14	2	19
Ohio†	6	--	42	--	--	2	5	--	16	21	--	1	4
Ind.†	5	--	26	--	--	1	4	--	5	3	9	--	3
Ill.	1	--	70	--	--	--	--	--	5	31	--	--	4
Mich.†	10	--	139	--	--	--	2	--	10	21	5	1	7
Wis.	--	--	92	--	--	--	--	--	--	3	--	--	1
W.N. CENTRAL	6	1	14	--	1	--	2	--	17	34	5	--	17
Minn.	--	--	1	--	--	--	--	--	5	9	--	--	4
Iowa†	--	--	6	--	--	--	1	--	1	1	--	--	--
Mo.†	4	1	5	--	1	--	--	--	6	17	2	--	6
N. Dak.	--	--	--	--	--	--	1	--	--	--	--	--	--
S. Dak.	--	--	--	--	--	--	--	--	--	4	1	--	1
Nebr.	--	--	--	--	--	--	--	--	2	--	1	--	3
Kans.	2	--	2	--	--	--	--	--	3	3	1	--	3
S. ATLANTIC	30	--	100	--	--	3	3	1	53	45	23	3	74
Del.	--	--	1	--	--	--	--	--	1	1	2	--	1
Md.	9	--	37	--	--	1	1	--	--	--	--	1	16
D.C.	--	--	--	--	--	--	--	--	--	--	--	1	1
Va.†	4	--	31	--	--	--	--	--	6	7	1	--	17
W. Va.	4	--	10	--	--	1	1	--	1	6	--	--	1
N.C.	1	--	NN	--	--	1	1	--	4	3	2	--	6
S.C.	--	--	--	--	--	--	--	--	8	1	--	--	4
Ga.	--	--	--	--	--	--	--	--	12	9	--	--	6
Fla.	17	--	21	--	--	--	--	1	21	18	18	1	22
E.S. CENTRAL	11	--	35	--	--	1	--	--	26	35	3	--	3
Ky.	4	--	34	--	--	1	--	--	5	4	1	--	1
Tenn.	1	--	NN	--	--	--	--	--	16	14	1	--	1
Ala.	4	--	1	--	--	--	--	--	--	1	1	--	1
Miss.	2	--	--	--	--	--	--	--	5	16	--	--	--
W.S. CENTRAL	28	1	32	--	1	4	1	--	21	46	42	1	20
Ark.	5	--	--	--	1	2	--	--	2	7	4	--	--
La.	7	--	NN	--	--	--	--	--	1	3	--	--	3
Okla.	--	--	--	--	--	--	1	--	2	1	2	--	--
Tex.†	16	1	32	--	--	2	--	--	16	35	36	1	17
MOUNTAIN	5	--	24	--	3	--	--	--	23	80	42	--	4
Mont.	--	--	3	--	--	--	--	--	3	24	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	1	--	--	--
Wyo.	--	--	--	--	--	--	--	--	--	1	--	--	--
Colo.	--	--	12	--	2	--	--	--	9	6	3	--	1
N. Mex.	--	--	--	--	--	--	--	--	6	19	7	--	1
Ariz.	--	--	NN	--	--	--	--	--	5	18	22	--	1
Utah	5	--	1	--	--	--	--	--	--	10	8	--	--
Nev.	--	--	8	--	1	--	--	--	--	1	2	--	1
PACIFIC	44	1	26	1	43	5	5	2	83	137	45	7	149
Wash.	3	--	20	--	39	--	--	--	6	9	6	--	6
Oreg.	16	--	4	--	--	--	1	1	10	25	6	--	3
Calif.†	25	1	--	1	1	5	4	1	67	102	33	7	122
Alaska	--	--	1	--	3	--	--	--	--	1	--	--	3
Hawaii	--	--	1	--	--	--	--	--	--	--	--	--	15
Guam †	NA	NA	NA	NA	--	NA	--	--	NA	NA	NA	NA	--
P.R.	--	--	4	--	--	1	--	--	--	1	2	--	4
V.I.	--	--	--	--	--	--	--	--	--	--	--	--	1

NN: Not notifiable.

NA: Not available.

†The following delayed reports will be reflected in next week's cumulative totals: Asep. meng.: Pa. -1; Chickenpox: Ind. +46, Mo. -1, Calif. +2, Guam +10; Enceph.: Ind. +1; Hep. B: N.H. +1, Pa. -1, Va. -1; Hep. A: N.J. -1, Pa. -1, Ohio -1, Iowa -1, Mo. -1, Tex. -17, Guam +1; Hep. unsp.: N.J. -1, Mo. -1, Tex. -2; Malaria: Mich. +1, Tex. -1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending July 29, 1978, and July 30, 1977 (30th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBEOLA		TETANUS
	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	1978	1978	CUM. 1978	CUM. 1978
UNITED STATES	213	21,744	51,690	49	1,559	1,144	147	12,507	38	143	14,416	45
NEW ENGLAND	5	1,954	2,465	8	80	50	5	711	-	6	706	1
Maine	-	1,309	164	-	6	3	1	484	-	1	147	-
N.H.†	-	45	510	1	8	3	1	12	-	-	98	-
Vt.	-	25	290	-	2	4	-	5	-	-	27	1
Mass. †	4	249	620	4	22	17	-	82	-	3	206	-
R.I.	-	7	61	1	17	1	-	31	-	-	40	-
Conn.	1	319	820	2	25	22	3	97	-	2	188	-
MID. ATLANTIC	51	2,064	8,225	5	259	149	28	557	4	43	2,848	2
Upstate N.Y.	24	1,341	3,745	3	85	32	4	188	2	9	497	1
N.Y. City	22	317	681	-	62	41	1	128	-	5	110	-
N.J.†	-	69	194	-	44	33	-	126	-	5	1,582	-
Pa.†	5	337	3,605	2	68	43	23	115	2	24	659	1
E.N. CENTRAL	63	9,338	10,651	3	139	125	67	4,971	6	41	6,628	2
Ohio†	3	469	1,532	1	50	40	20	791	2	7	1,248	1
Ind.†	4	170	4,280	-	26	8	5	278	-	8	540	1
IL	13	594	1,544	1	7	32	3	1,622	-	3	414	-
Mich.	39	6,691	913	1	45	33	11	1,331	4	17	2,940	-
Wis.	4	1,414	2,382	-	11	12	28	949	-	6	1,486	-
W.N. CENTRAL	3	378	9,402	-	53	52	2	1,881	3	7	627	6
Miss.	-	34	2,617	-	12	19	-	17	-	-	127	1
Iowa†	-	51	4,262	-	5	7	-	120	-	-	49	-
Mo.†	-	11	1,035	-	23	15	2	1,149	3	2	93	-
N. Dak.	3	192	22	-	3	1	-	11	-	1	81	-
S. Dak.	-	-	66	-	2	4	-	6	-	1	111	1
Nebr.	-	5	192	-	1	1	-	18	-	-	34	-
Kans.	-	85	1,208	-	8	5	-	560	-	3	132	4
S. ATLANTIC	21	4,688	4,420	10	399	265	14	677	10	4	970	8
Del.	-	5	22	1	13	17	-	48	-	-	34	-
Md.	-	42	371	1	20	17	1	61	-	-	6	1
D.C.	-	-	14	-	1	-	-	1	-	-	1	-
Va.	6	2,793	2,619	2	50	20	1	120	-	-	230	-
W. Va.	2	1,011	213	1	9	9	6	159	1	-	322	-
N.C.	3	114	61	-	78	59	-	56	2	-	178	2
S.C.	1	194	146	-	24	26	-	15	2	2	28	1
Ga.	-	17	762	1	46	39	1	63	2	1	4	-
Fla.	9	512	212	4	158	78	5	154	3	1	167	4
E.S. CENTRAL	18	1,367	1,933	8	129	127	8	1,058	1	5	484	1
Ky.	-	115	1,160	2	25	26	-	179	1	-	122	1
Tenn.	12	949	660	1	31	30	8	441	-	5	194	-
Ala.	-	89	77	2	39	47	-	373	-	-	21	-
Miss.	6	214	36	3	34	24	-	65	-	-	147	-
W.S. CENTRAL	22	955	2,030	7	238	201	13	1,600	7	10	885	13
Ark.	-	16	29	-	21	9	-	577	1	-	57	1
La.	4	320	74	1	92	77	-	60	-	1	480	1
Okla.	-	13	54	-	16	10	-	4	-	-	11	2
Tex.†	18	606	1,873	6	109	105	13	959	6	9	337	9
MOUNTAIN	6	241	2,477	-	32	29	-	366	1	5	191	1
Mont.	-	102	1,154	-	1	2	-	136	-	-	17	-
Idaho	-	1	161	-	3	4	-	20	-	-	2	-
Wyo.	-	-	15	-	-	1	-	-	-	-	-	-
Colo.	-	29	497	-	2	1	-	74	-	1	44	-
N. Mex.	-	-	253	-	7	7	-	15	-	-	3	-
Ariz.	5	49	296	-	11	10	-	10	1	1	90	-
Utah	-	44	8	-	4	3	-	107	-	2	25	1
Nev.	1	16	93	-	4	1	-	4	-	1	10	-
PACIFIC	24	759	10,087	8	230	146	10	686	6	22	1,077	11
Wash.	-	134	525	-	39	19	-	164	-	-	93	-
Oreg.	4	144	350	1	21	17	2	78	1	9	100	-
Calif.	18	474	9,118	6	160	84	6	412	5	8	871	11
Alaska	-	-	63	1	6	25	1	7	-	1	3	-
Hawaii	2	7	34	-	4	2	1	25	-	4	10	-
Guam†	NA	24	4	-	-	-	NA	31	NA	NA	3	1
P.R.	-	149	943	1	3	1	23	1,057	-	-	15	5
V.I.	-	6	14	-	1	-	-	1	-	-	1	-

NA: Not available.

†The following delayed reports will be reflected in next week's cumulative totals: Measles: Mass. -2, Pa. -2, Ind. +5, Tex. -1; Men. inf.: N.H. +1, N.J. +3; Mumps: Pa. +2, Ind. +6, Guam +2; Pertussis: Iowa +1, Mo. +3; Rubella: Pa. +6, Ohio +5, Ind. +10, Mo. +3.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending July 29, 1978, and July 30, 1977 (30th week)

REPORTING AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1978	CUM. 1978	CUM. 1978	1978	CUM. 1978	1978	CUM. 1978	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	CUM. 1977*	CUM. 1978
UNITED STATES	741	17,351	59	9	247	55	554	22,609	549,977	551,768	496	11,886	11,777	1,727
NEW ENGLAND	34	569	-	-	38	-	9	694	14,262	14,350	4	341	492	66
Maine	2	40	-	-	-	-	-	57	1,088	1,021	-	8	14	59
N.H.t	-	10	-	-	5	-	-	34	660	568	-	4	3	1
Vt.	1	24	-	-	1	-	-	15	329	377	-	3	6	-
Mass.t	24	329	-	-	23	-	4	374	6,323	6,209	3	210	350	4
R.I.	3	42	-	-	4	-	1	49	1,015	1,195	-	16	7	-
Conn.t	4	124	-	-	5	-	4	165	4,847	4,980	1	100	112	2
MID. ATLANTIC	107	3,021	3	2	28	1	29	2,026	58,707	55,693	61	1,589	1,650	43
Upstate N.Y.	10	437	2	-	7	1	16	450	9,904	9,325	14	125	160	36
N.Y. City	56	1,129	1	2	15	-	2	904	23,124	21,999	33	1,119	1,036	-
N.J.	22	733	-	-	-	-	4	199	10,916	9,568	9	179	214	5
Pa.	21	722	-	-	2	-	7	473	14,763	14,801	5	166	240	2
E.N. CENTRAL	112	2,638	1	2	13	-	14	3,102	81,921	85,755	48	1,275	1,257	89
Ohio	14	477	1	-	5	-	9	810	21,490	22,721	17	245	289	11
Ind.	11	316	-	-	-	-	1	368	8,489	7,801	9	76	93	6
Ill.	39	1,001	-	-	1	-	4	968	25,540	27,697	20	790	674	25
Mich.t	48	738	-	2	7	-	-	750	18,981	19,663	2	125	144	5
Wis.	-	106	-	-	-	-	-	206	7,421	7,873	-	39	57	42
W.N. CENTRAL	24	582	11	-	12	4	16	1,331	27,962	29,055	8	280	264	374
Minn.	-	105	-	-	4	-	-	235	4,865	5,231	3	116	84	123
Iowa	5	66	-	-	2	-	-	178	3,180	3,369	-	32	25	75
Mo.	15	248	10	-	4	2	10	550	11,947	12,155	4	78	90	45
N. Dak.	-	27	-	-	-	-	1	25	514	541	-	2	2	63
S. Dak.	-	47	-	-	-	2	2	52	1,008	807	1	2	2	46
Nebr.	-	12	-	-	-	-	-	175	2,115	2,535	-	8	24	2
Kans.	4	77	1	-	2	-	3	116	4,335	4,417	-	42	37	20
S. ATLANTIC	206	3,778	6	1	34	33	320	5,987	133,349	137,315	128	3,150	3,338	231
Dell.	-	29	-	-	1	-	4	55	1,805	1,928	-	6	18	1
Md.t	22	568	4	1	6	8	70	742	17,082	17,356	6	241	217	-
D.C.	11	203	-	-	1	-	-	353	8,731	9,044	5	246	356	-
Va.	16	399	2	-	5	11	76	571	12,627	13,895	7	262	328	5
W. Va.	4	160	-	-	2	-	9	44	1,886	1,880	-	8	1	2
N.C.t	31	573	-	2	13	107	862	19,244	19,244	20,448	17	308	475	5
S.C.t	28	339	-	-	4	1	31	396	13,018	12,552	4	160	144	53
Ge.t	40	523	-	-	3	-	23	1,127	24,801	26,755	27	760	676	154
Fla.	52	984	-	-	10	-	-	1,837	34,155	33,457	62	1,159	1,123	11
E.S. CENTRAL	32	1,584	5	-	5	11	101	2,079	47,741	49,350	31	609	412	87
Ky.	-	352	2	-	2	5	33	327	5,907	6,683	6	80	50	48
Tenn.	17	480	3	-	1	5	59	959	17,674	19,954	10	209	130	17
Ala.	15	389	-	-	1	-	5	422	13,657	13,407	3	91	73	22
Miss.t	-	363	-	-	1	1	4	371	10,503	9,306	12	229	159	-
W.S. CENTRAL	98	2,037	28	1	27	4	58	2,707	75,786	69,893	64	1,891	1,624	574
Ark.	10	223	19	-	2	-	8	94	5,624	5,375	-	46	38	83
La.t	22	346	5	1	3	-	1	285	12,348	10,406	11	407	377	11
Okl.	11	213	3	-	2	2	35	367	7,238	6,562	5	58	46	126
Tex.t	55	1,255	1	-	20	2	14	1,961	50,576	47,550	48	1,380	1,163	354
MOUNTAIN	14	500	3	-	13	-	4	976	23,644	22,334	17	240	239	30
Mont.	2	33	-	-	-	-	2	39	1,202	1,111	-	7	4	4
Idaho	1	21	2	-	5	-	1	25	758	1,048	1	7	5	-
Wyo.	1	13	-	-	-	-	-	35	475	544	-	4	2	-
Colo.t	-	43	-	-	3	-	-	242	5,684	5,784	2	67	74	3
N. Mex.t	2	78	-	-	1	-	-	83	2,944	3,307	6	60	47	9
Ariz.	8	246	-	-	2	-	-	360	5,443	6,385	6	54	94	12
Utah	-	25	1	-	1	-	-	59	1,118	1,238	-	11	5	2
Nev.	-	41	-	-	1	-	1	133	3,020	2,917	2	30	8	-
PACIFIC	114	2,642	2	3	77	2	3	3,707	89,605	88,023	135	2,511	2,501	233
Wash.	NA	112	-	-	6	-	-	338	7,323	6,507	NA	102	134	-
Oreg.	8	119	-	-	1	2	2	227	6,148	6,033	3	82	71	5
Calif.	97	2,027	2	3	63	-	1	3,002	71,947	70,755	129	2,294	2,254	221
Alaska	-	46	-	-	-	-	-	80	2,828	2,863	-	7	18	7
Hawaii	9	338	-	-	7	-	-	60	1,659	1,865	3	26	24	-
Guam†	NA	35	-	NA	-	NA	-	NA	113	132	NA	-	1	-
P.R.	-	240	-	-	1	-	-	39	1,307	1,831	3	252	321	15
V.I.t	-	4	-	-	2	-	-	8	120	117	1	10	5	-

NA: Not available.

†The following delayed reports will be reflected in next week's cumulative totals: TB: N.H. +2, Mich. -1, Md. -1, N.C. -1, S.C. -1, Guam +2; T. fever: Conn. +1, N. Mex. +1; RMSF: Mass. -1; GC: Ga. +846, Miss. -3, La. -32, Guam +6, V.I. +8; Syphilis: La. -4, Tex. -1, V.I. +2; An. rabies: Colo. +12.

TABLE IV. Deaths in 121 U.S. cities,\* week ending  
July 29, 1978 (30th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL	REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1			ALL AGES	>65	45-64	25-44	<1	
<b>NEW ENGLAND</b>	638	388	182	32	15	27	<b>S. ATLANTIC</b>	1,034	599	263	72	62	37
Boston, Mass.	207	116	62	14	6	10	Atlanta, Ga.	120	64	33	3	13	5
Bridgeport, Conn.	36	22	9	3	1	2	Baltimore, Md.	298	164	82	21	17	6
Cambridge, Mass.	10	2	8	-	-	1	Charlotte, N.C.	46	23	14	4	2	1
Fall River, Mass.	25	22	3	-	-	-	Jacksonville, Fla.	85	48	24	5	4	3
Hartford, Conn.	34	23	7	1	1	1	Miami, Fla.	114	60	35	9	9	5
Lowell, Mass.	35	20	11	4	-	3	Norfolk, Va.	50	31	10	6	3	4
Lynn, Mass.	22	16	4	1	-	-	Richmond, Va.	77	42	19	6	10	3
New Bedford, Mass.	25	16	8	-	-	-	Savannah, Ga.	46	26	11	4	-	-
New Haven, Conn.	40	24	10	3	-	-	St. Petersburg, Fla.	69	56	10	2	1	1
Providence, R.I.	78	46	26	2	3	5	Tampa, Fla.	71	51	11	5	3	8
Somerville, Mass.	7	1	6	-	-	-	Washington, D.C.	-	-	-	-	-	-
Springfield, Mass.	41	24	13	2	1	4	Wilmington, Del.	58	34	14	7	-	1
Waterbury, Conn.	19	12	6	-	1	1							
Worcester, Mass.	59	44	9	2	2	-							
							<b>E.S. CENTRAL</b>	690	379	202	44	32	33
<b>MID. ATLANTIC</b>	2,718	1,681	678	188	78	147	Birmingham, Ala.	124	66	45	6	2	3
Albany, N.Y.	59	39	12	4	1	-	Chattanooga, Tenn.	63	37	16	5	2	7
Allentown, Pa.	21	9	7	4	-	-	Knoxville, Tenn.	49	28	18	-	1	2
Buffalo, N.Y.	122	75	35	5	-	15	Louisville, Ky.	98	64	20	5	7	5
Camden, N.J.	38	22	11	3	1	1	Memphis, Tenn.	159	85	46	13	10	1
Elizabeth, N.J.	27	19	6	-	1	1	Mobile, Ala.	65	32	21	3	5	3
Erie, Pa.	66	29	15	-	2	2	Montgomery, Ala.	44	21	8	8	1	4
Jersey City, N.J.	53	31	13	5	2	1	Nashville, Tenn.	88	46	28	4	4	8
Newark, N.J.	79	31	27	7	7	2							
N.Y. City, N.Y.	1,407	895	323	103	39	68	<b>W.S. CENTRAL</b>	1,147	648	295	85	63	28
Paterson, N.J.	46	26	13	5	2	4	Austin, Tex.	29	17	4	4	1	1
Philadelphia, Pa.	388	213	113	35	15	24	Baton Rouge, La.	29	13	7	5	1	-
Pittsburgh, Pa.	60	31	22	6	-	1	Corpus Christi, Tex.	27	17	6	1	2	1
Reading, Pa.	39	29	7	1	-	-	Dallas, Tex.	196	93	62	16	15	4
Rochester, N.Y.	115	82	19	4	6	12	El Paso, Tex.	60	36	15	2	1	1
Schenectady, N.Y.	19	15	3	1	-	2	Fort Worth, Tex.	107	66	27	8	4	-
Scranton, Pa.	25	20	4	1	-	3	Houston, Tex.	176	92	45	19	11	-
Syracuse, N.Y.	92	56	29	2	2	1	Little Rock, Ark.	68	38	22	3	4	5
Trenton, N.J.	34	24	8	2	-	5	New Orleans, La.	148	81	44	11	9	-
Utica, N.Y.	28	22	6	-	-	3	San Antonio, Tex.	153	93	36	10	6	3
Yonkers, N.Y.	20	13	5	-	-	2	Shreveport, La.	56	36	13	3	1	4
							Tulsa, Okla.	98	66	14	3	8	9
<b>E.N. CENTRAL</b>	2,252	1,273	640	146	95	59	<b>MOUNTAIN</b>	585	337	142	42	30	30
Akron, Ohio	80	57	17	1	3	-	Albuquerque, N. Mex.	61	34	14	5	3	6
Canton, Ohio	29	17	10	-	-	-	Colorado Springs, Colo.	35	25	7	2	1	4
Chicago, Ill.	529	278	158	42	32	17	Denver, Colo.	93	48	27	4	8	5
Cincinnati, Ohio	155	81	52	12	7	6	Las Vegas, Nev.	67	30	20	11	2	5
Cleveland, Ohio	186	102	65	9	3	5	Ogden, Utah	23	10	6	4	2	5
Columbus, Ohio	143	76	44	6	8	1	Phoenix, Ariz.	140	83	36	10	5	3
Cuyahoga Falls, Ohio	101	65	22	7	4	2	Pueblo, Colo.	21	14	4	1	-	2
Detroit, Mich.	259	130	85	19	16	10	Salt Lake City, Utah	56	32	12	1	5	-
Evansville, Ind.	45	26	14	3	1	1	Tucson, Ariz.	89	61	16	4	4	-
Fort Wayne, Ind.	15	9	3	2	-	1							
Gary, Ind.	63	39	16	2	1	3	<b>PACIFIC</b>	1,566	992	380	82	54	29
Grand Rapids, Mich.	170	94	51	10	3	1	Berkeley, Calif.	13	7	6	-	-	-
Indianapolis, Ind.	24	10	7	-	2	2	Fresno, Calif.	59	41	12	2	2	2
Madison, Wis.	117	80	26	8	1	2	Glendale, Calif.	28	19	7	1	1	-
Milwaukee, Wis.	27	15	7	3	1	2	Honolulu, Hawaii	45	23	11	5	1	-
Peoria, Ill.	37	20	8	4	2	-	Long Beach, Calif.	102	59	29	6	7	1
Rockford, Ill.	48	34	10	3	-	-	Los Angeles, Calif.	456	293	100	25	14	12
South Bend, Ind.	125	80	23	9	6	1	Oakland, Calif.	54	41	10	-	2	1
Toledo, Ohio	52	36	10	3	1	1	Pasadena, Calif.	27	16	6	4	-	-
Youngstown, Ohio							Portland, Ore.	117	68	37	6	4	3
							Sacramento, Calif.	67	40	10	6	7	-
<b>W.N. CENTRAL</b>	720	441	176	41	37	25	San Diego, Calif.	144	89	41	7	3	2
Des Moines, Iowa	40	27	7	2	2	1	San Francisco, Calif.	140	89	34	8	4	1
Duluth, Minn.	18	12	6	-	-	1	San Jose, Calif.	60	43	13	1	-	1
Kansas City, Kans.	37	22	7	5	-	1	Seattle, Wash.	159	102	39	10	2	3
Kansas City, Mo.	136	87	34	3	6	2	Spokane, Wash.	51	37	10	-	4	2
Lincoln, Nebr.	31	17	9	3	1	4	Tacoma, Wash.	44	25	15	1	3	1
Minneapolis, Minn.	88	49	20	12	3	5							
Omaha, Nebr.	93	63	21	1	7	3	<b>TOTAL</b>	11,350	6,738	2,958	732	466	415
St. Louis, Mo.	155	84	42	9	14	3							
St. Paul, Minn.	61	42	13	4	2	-	<b>Expected Number</b>	10,925	6,515	2,817	718	427	356
Wichita, Kans.	61	38	17	2	2	5							

\*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

\*\*Pneumonia and influenza

Epidemiologic Notes and Reports

## California Encephalitis — Wisconsin, Minnesota

On July 14, 1978, a 3-year-old girl from DeSoto, Wisconsin, was hospitalized in near-by LaCrosse with a diagnosis of acute encephalitis. The girl's condition worsened, and she died on July 18. Virus was isolated from brain tissue collected at autopsy. It was subsequently identified at the University of Wisconsin on July 24 as LaCrosse or a closely related strain of California encephalitis (CE) group virus by specific fluorescent antibody staining of original brain tissues and passaged virus.

The child had lived on a wooded farm 1 mile east of the Mississippi River. Her parents recalled that she had been bitten so frequently by mosquitoes that, when hospitalized, she had a rash of the exposed parts of her body. When the cause of her death was established, Wisconsin health officials, with the assistance of family and relatives, searched the area for breeding sites of *Aedes triseriatus*, the vector mosquito. Mosquito larvae were collected from tree holes, rubber tires, discarded containers, and a disused and partially water-filled boat. The larvae were removed for viral study, and the breeding sites were drained or destroyed.

A survey of hospitals in those areas of southwestern Wisconsin and adjacent southeast Minnesota known to be endemic for CE revealed that 16 children had been admitted with signs of encephalitis in July. The fatal case, when tested by the counterimmune electrophoresis technique at the hospital where she was admitted, was found to be one of 4 children with encephalitis who had evidence of antibodies to CE virus. Laboratory studies are pending at the Wisconsin and Minnesota state laboratories to determine the etiologies of the illnesses of the 16 children with encephalitis.

State and local health officials in the affected areas have issued news releases to inform the public of the situation. *A. triseriatus* breeds in water collected in naturally occurring cavities in trees and in artificial containers, such as discarded tires. Prevention of human infection depends on eliminating breeding sites around houses and residential areas and on preventing mosquito bites in persons visiting wooded areas.

Reported by C Gunderson, MD, LaCrosse Lutheran Hospital; W Thompson, DVM, Dept of Preventive Medicine, University of Wisconsin; E Fifer, MD, State Epidemiologist, R Wade, PhD, J Washburn, MS, Minnesota Dept of Health; IE Imm, MA, State Epidemiologist, M LaVenture, MPH, Wisconsin State Dept of Health and Social Services; Vector-Borne Diseases Div, Bur of Laboratories, Vector Biology and Control Div, Bur of Tropical Diseases, and Viral Diseases Div, Bur of Epidemiology, CDC.

**Editorial Note:** Typical reports of CE involve children with acute encephalitis or meningitis in midwestern states. Fatal cases of documented CE are rare: Only 3 have been reported. Isolation of the LaCrosse virus has been reported only from 1 other case, also fatal.

Elimination of infected breeding sites is important because CE virus is perpetuated by transovarial transmission to successive generations of mosquitoes.

International Notes

## Prevention of Blindness

The number of blind people in the world is estimated at 40 million or approximately 1% of the population; in some areas this figure approaches 4%. Between 15 and 25 million of these people have preventable or easily curable blindness caused by such infectious and deficiency diseases as trachoma, onchocerciasis, and xerophthalmia. Because of the wide social, medical, and economic burdens caused by blindness, which affects

### *Prevention of Blindness – Continued*

mostly the poorer areas of the world, the World Health Assembly and the Regional Committees have adopted a number of resolutions to promote a Program on Prevention of Blindness. On February 20-23, 1978, in Geneva, the World Health Organization (WHO) organized an advisory meeting for the development of this program; a summary of the main issues of that meeting follows.

**Definition of the problem:** On a worldwide basis, information on blindness is limited and disparate. Health administrations are urged to take the necessary action to collect more accurate and uniform data.

For this purpose, an internationally acceptable definition of blindness should be used. A good basis is the classification of severity of visual impairment in the International Classification of Diseases (ICD), recommended by a WHO Study Group on the Prevention of Blindness (7). In that document, a distinction is made between low vision, blindness, and unqualified visual loss.

**Review of WHO's role:** In 1977, WHO provided advisory services to 7 countries in order to help identify the nature and extent of the problem, define priorities, and implement programs. WHO's role is that of promoter or catalyst; national and/or local conditions represent the starting point. The current orientation of the overall WHO Program is towards technical cooperation and collaboration among developing countries. Depending upon circumstances and subject to requests from national authorities, WHO may provide other critical input, such as: assessing the nature and extent of the problem; formulating national or regional plans, programs, and projects; collecting, elaborating, and distributing data; organizing and managing training activities; procuring essential supplies and equipment; and offering advisory services of staff members, short-term consultants, and, possibly, of personnel assigned for longer periods. Although the WHO regular budget provisions for the prevention of blindness will increase in coming years, the magnitude of the problem is such that extrabudgetary resources are needed to maintain momentum and to have an impact at national, regional, and global levels.

**Principles of eye health promotion and eye care delivery:** Prevention of blindness may be defined as systematic, community-based action to prevent blindness and visual impairment and to relieve remediable blindness. Preventing blindness requires that 3 urgent areas of national action and international cooperation be recognized:

1. Communities in which conditions are such that residents are at high risk of becoming blind should be identified. Initially intensive, multidisciplinary action to control or eradicate such roots of blindness as trachoma, onchocerciasis, and xerophthalmia should be a high priority.

2. Simple methods should be applied for the identification of communities with a large number of cases of readily remediable blindness. Once so identified, initially intensive action to deliver ophthalmic care, such as surgery, should be a high priority.

3. Primary eye care should be provided as part of general primary health care. There should be strong intermediate and central ophthalmic care to provide an adequate referral system with provision for the training and continuing supervision of general medical and ophthalmic assistants.

The clear identification of these 3 levels of urgency will help to obviate the misunderstanding that equates the prevention of blindness with the provision of ophthalmologists.

**Recommendations:** Several recommendations were made, among them that:

1. A significant augmentation of resources be sought for the elimination of preventable and easily curable blindness. These would include, among others, contributions by governments and others to the WHO Voluntary Fund for Health Promotion to be used for the prevention of blindness; preparation of concrete plans of action and the continuing

### *Prevention of Blindness — Continued*

development of the WHO Program in concert with country health programming, primary health care, and related social developmental programs; and mobilization by non-governmental organizations of human, financial, and other resources for the implementation of programs for the prevention of blindness.

2. The WHO Program be implemented by establishing a Program Advisory Group. To meet yearly, the group should set up objective-oriented task forces which might cover nutritional blindness, trachoma and other blinding eye infections, onchocerciasis, delivery of eye care, manpower training and development, and mobilization of resources. This recommendation also indicated that the WHO Regional Offices should consider the establishment of Regional Advisory Groups for the Prevention of Blindness and, where indicated and if possible, appoint a full-time person for the prevention of blindness. Finally, the resolution called for WHO to designate collaborating centers for the prevention of blindness with strong facilities for training in relevant disciplines.

3. WHO technical cooperation should be specifically directed towards the promotion of the following activities at the national level: collection of data on the number and distribution of blind and visually handicapped persons, according to ICD/WHO criteria (1), and on manpower and facilities available for prevention of blindness; development of initially intensive programs to eliminate unnecessary blindness; training, at an early date, of the required manpower, auxiliary, and specialized health workers in national programs; involvement of communities that need preventive action in detailed planning; promotion of health education relevant to preventing blindness; strengthening of eye-care services at all levels; enactment of legislation aimed at reducing the risks to vision at work, home, and elsewhere; promotion of research on the methods for prevention of blindness with emphasis on the contribution of the behavioral sciences in addition to relevant basic, applied, and health services research; and consideration of all of these points in the formulation of programs at the country level.

*Based on a report in the World Health Organization's Weekly Epidemiological Record 53:165-168, 1978.*

**Editorial Note:** Although the diseases responsible for much of the preventable or easily curable blindness in the poorer areas of the world are uncommon in the United States, trachoma still occasionally causes blindness, particularly among American Indian populations in the southwestern United States. Other forms of blindness which occur more commonly are blindness due to cataract, glaucoma, and occupational or accidental injury. Programs to reduce eye injury, to screen high-risk groups for curable eye disease, and to refer those with positive blindness for appropriate treatment should be strengthened at all levels.

*Reported by Nutrition Div, CDC.*

#### **Reference**

1. World Health Organization: International Classification of Diseases, Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death. Vol I. Geneva, World Health Organization, 1977.

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The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

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**Errata, Vol. 27, No. 28**

**p236** In the article, "Measles — United States, 1977-1978," Table 1, the percent change from 1976 to 1977 for the 10- to 14-year age group for the percent distribution and incidence of reported cases should have been -2.9% and +32.9%, respectively.

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